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## ORIGINAL DEPARTMENT.

### COMMUNICATIONS.

#### CASE OF DOUBLE URETHRAL STRICTURE.

By G. F. WITTER, M. D.,  
Of Grand Rapids, Wis.

I send you a report of the following case of Urethral Stricture and Urinary Fistula, which I trust will not be without interest to your readers.

The patient, A. B. L., æt. 45, a Jew by birth, in February last was attacked with gonorrhœa, from which he continued to suffer, more or less, until March, when the urethral discharge began to assume the form of gleet. This his attending physician, Dr. Leon Foisig, had attempted to check, using, among other things, some quite active injections, but without success. In the early part of April he commenced to have strictures, both near the meatus, and at or near the bulb of the urethra. They became more and more formidable, and for a day or two before the entire suppression of urine, it was quite difficult to pass more than a few drops of urine at a time.

On the 20th of April I was summoned in haste to meet in council with Drs. L. Foisig and Webster. We found the patient suffering the most excruciating pain from the almost entire suppression of urine and from orchitis. The urethra seemed almost entirely occluded and impermeable. Drs. F. and W., having made several thorough but unsuccessful attempts to pass the catheter during the last forty-eight hours, we at once put the patient under the influence of ether, and commenced catheterization, using first No. 8,

then 7, 6, 5, etc., gum elastic catheter, each being preceded by an injection of warm olive oil, but with no better success than before, owing to the evident tortuous and irregular canal which no ordinary catheter or sound could follow. Having made several fruitless attempts at this, we concluded to precede the use of the catheter with warm olive oil and ex. belladonna, by a hard rubber force syringe, thus bringing a portion of this solution in contact with a portion of the whole urinary canal, with a view to produce sufficient dilatation to admit the passage of a small catheter at least. Though we failed in securing the desirable result, yet we produced sufficient dilatation to admit of the exit of so much urine that the patient was relieved.

We directed warm fomentations of vinegar and hops to the testes, and the free use of diluent drinks, such as barley water, gum arabic, etc., together with one or more enemata of sulph. morphia, in the event of there being much pain and uneasiness.

May 21, 7 A. M. Patient passed but little urine during the night, and only by drops, notwithstanding an almost constant and painful straining. The testicles were very much swollen, and the right one was so full and distended as to require the use of the trocar. It was directed inward and upward, to about the centre of the body of the right testicle; when withdrawn it was followed by a small amount of pus. We then used the catheter again, preceded by the warm olive oil and belladonna, with no more desirable result than when last used; continued the use of warm fomentations and sulph. morphia injections.

7 P. M. Symptoms not much changed, except that there was more pain and general uneasiness. Ordered laudanum and starch enemata two or three times a day, as follows:—

R. Tinct. opii, gtt.xl.  
Starch water, f.℥viij. M.

To be used to control the pain and uneasiness experienced in and about the rectum.

22d, A. M. Having been requested to take controlling charge of the case at this time, it was determined to make a renewed effort to secure a passage into the bladder. After placing the patient in a hot hip bath and using the oil and belladonna, we again attempted the use of the No. 6 catheter; after which Nos. 4, 5 and 7 were passed to the first stricture, which dilated it somewhat, but not being able to pass the membranous portion or bulb, it became important that aid should be had soon, as the patient was growing weaker. We next resorted to the flexible silver bougie, which is not much unlike, in structure, the bullet probe, and being flexible, it adjusts itself to the tortuous condition of the canal.

We succeeded in passing it through the first stricture, but the second stricture offered great difficulty. It was in the bulbous portion, at its junction with the membranous portion of the urethra. After having passed the flexible instrument into, and following this tortuous canal in its course to the seat of the stricture, we proceeded with gentle pressure, turning the bougie in a sort of half rotary manner at the same time, till we finally passed the obstacle and entered the bladder. This gave exit to a very copious discharge of ammoniacal urine, with much relief to the patient. Effort was again made to pass the No. 5 catheter, but with no success, when three different sized catheters were also used with the same result. It is well to remark that the distorted appearance of the silver bougie served, when removed, to give a clear idea of the tortuous condition of the canal, the impression of which was left as distinctly as if a cast had been made expressly for that purpose.

This condition of things, together with the recurrence of pain, led to the apprehension that there must be an abscess forming somewhere in the vicinity of the membranous portion of the canal. This became more manifest by the extreme heat, pain and swelling, while attempting to aid catheteri-

zation by passing the finger into the rectum. It was decided to continue about the same treatment as upon the previous night and await the result.

7, P. M. General symptoms much improved, and there had just been a free exit of pus from the testicle. Used the silver bougie, followed by the catheter, with less resistance than at any time previous; ordered the same treatment as before.

23d, A. M. Symptoms generally much improved, except with the free exit of pus. There has been also a free exit of urine through the new passage of the testicle; used the bougie as before, preceded as usual by the use of olive oil and belladonna.

7, P. M. Symptoms not much changed; no trouble in urinating, however. Nearly all the urine finds its vent through the fistulous opening; passed the bougie as before, followed by No. 7 catheter, without much trouble.

24th, A. M. Symptoms improved; patient has less anorexia and less thirst. Used the catheter without the use of the bougie, attended with much pain and depression from the evident effect of the ether, which had been used at every operation up to this time with no bad results; but it became necessary to suspend its use for a time, until the patient became resuscitated. I contented myself with putting him on a nourishing diet, and the use of iron and bark, and washing out the urethra with warm water and sulph. morphia three times a day for a few days. We permitted him to pass the urine through the new opening for nearly a month with but little treatment, except the free use of diluents and enemata of starch and laudanum, more or less, according to the symptoms. This treatment was followed out and resulted in increased health, strength and vitality until the early part of June, when he began to suffer much mentally in reference to his new and unreal uterine canal, which appears to become somewhat obstructed at times with small crystals like phosphates, which cause more or less pain in their passage.

June 16. I determined to make an effort to close the fistula and cause the passage of urine through its natural channel. This I attempted by putting him under the influence of chloroform, and passing the silver bougie, after which the No. 8 catheter, thus evacuating the bladder, then filling the fistula with surgeon's lint saturated in a solu-

tion of glycerine and carbolic acid, in the proportion of each as follows:—

R. Glycerine, f.ʒj.  
Carbolic acid, gtt. xxx. M.

The lint, thus saturated, was forced back to the catheter, where it was allowed to remain twenty-four hours without changing, and no urine allowed to escape except through the catheter, used three times a day for that purpose.

This course was followed, with but little variation, except when the lint was removed and the fresh lint replaced, being forced back less each time, until about the seventh day, when the lint was entirely removed, and the catheter used only once a day.

June 24.—Symptoms much improved; catheter No. 7 was passed with ease, but without the staff.

July 9.—Much pain near the rectum, and much uneasiness in urinating, but less discharge of slimy mucus. Ordered sitz bath and warm fomentations.

July 10.—Patient is suffering much pain and uneasiness; urinates with much difficulty. The bladder is very irritable and tender, and appears to be much hypertrophied. There is also much tenderness over the triangular space, with three small protuberances nearly over the region of the bulb of the urethra, which was very tender to the touch. Used the catheter No. 8, without the staff, and succeeded in entering the bladder, and opened the three swellings, each of which gives exit to a slimy mucous pulp, followed by a dribbling of urine.

July 11.—It becomes apparent that this is urethral perforation, followed by escape of urine and percolation of the perineal tissue, and the urine, instead of making only one opening by its presence and irritation, has become extravasated. Washed out each opening thoroughly with the following solution:—

R. Carbolic acid, crystals, ʒj.  
Glycerine,  
Aque fontana, aa f.ʒss. M.

We were again obliged to resort to the use of the catheter, which we continued three times a day for one week, with a view to keep the urethra clear of obstruction, and to cause the flow of all the urine through it, thereby removing the very cause that kept these new-made sinuses in existence.

July 18.—The functions of these new-made openings have evidently vanished, there being no more passage of urine through them, and the openings appearing to be closed.

July 26.—General condition much better, yet the discharge from the urethra still continues. Used catheter only every third day, together with general supporting treatment. Directed the following:—

R. Ol. sandalwood, f.ʒj.  
Fl. ext. belladonna, gtt. xl.  
Fl. ext. krameria, f.ʒj.  
Mucil. acacia, f.ʒiij.

Fiat mistura.

Dose—Teaspoonful every three hours.

The above treatment was continued; but little change noticed.

August 12.—Urine continues loaded with a sort of tenacious mucous, with now and then prismatic crystals. Discontinued use of catheter, and ordered the use of the following:—

R. Syrup. sarsaparilla, f.ʒij.  
Potas. iodidi, ʒiij.

Fiat mistura.

Dose—One teaspoonful every six hours, alternately with the emulsion, together with warm baths every other day.

This treatment was followed up till to-day, with but little change.

August 21.—General uneasiness over the bladder, and vicinity of the ureters. Ordered laudanum and starch injections three times a day, per rectum.

August 23, 8 P. M.—Upon my arrival at this time the patient was suffering extreme pain and mental anxiety, notwithstanding the free use of opiates. At this time the silver bougie was used, followed by No. 7 catheter, resulting in speedy relief to the patient.

August 27.—Patient hopeful; has but little pain or uneasiness; still there is little or no diminution in the deposits of the urine. Determined to wash out the bladder by the use of the probe syringe, with the following:—

R. Glycerine,  
Aque fontana, aa f.ʒss.  
Carbolic acid, gtt. x. M.

Which solution is to follow the catheter, both of which we used once a week only. Other treatment was continued, about the same, with but little change in condition or treatment, up to the 21st of September.

September 21.—Patient much improved. Discontinued use of catheter, and all medi-

cal treatment except general supporting treatment.

November 18.—Patient has been in a good condition up to this time, but suffers more severe pain in the rectum, and sharp, cutting pain when attempting to micturate. The urine being of a slightly alkaline reaction, intermingled with sharp prismatic crystals, the presence of which in the urethra seems to be the source of much of the pain, the urethra having become so much irritated as to be susceptible to the slightest impression.

November 25.—Patient gaining; free passage of urine. Discontinued the use of the catheter, except once a week. Ordered suppositories, to control the pain in the rectum.

December 2.—Symptoms favorable. Used the catheter, with no obstruction. Directed him to use it himself once a week. About this time the patient determined to visit Milwaukee, where he hoped to get relief from the constant and unnatural discharge from the urethra, thereby relieving me, and taxing one of our best Milwaukee surgeons with a burden not easily forgotten. Having been absent about two months, he returned home again, with the discharge but little, if any, changed, and his general health improved.

I have thus given an outline of this case, and the treatment, leaving out many points of interest for want of time and space; and although we did not succeed in every particular in controlling the symptoms of this case, yet our expectations were more than realized in, first, overcoming and preventing further urethral obstructions; secondly, in preventing its re-establishment, by proper instruments at proper intervals; and, thirdly, in closing and keeping closed those fistulous openings, without resorting to the knife.

#### ORIGINAL OBSERVATIONS AND EXPERIMENTS WITH HYDRATE OF CHLORAL.

BY LAURENCE TURNBULL, M. D.,  
Of Philadelphia.

This new and valuable sleep-promoter, which has been so recently introduced into practice, has already been employed in thousands of cases.

Chloral conforms to all the tests of Drs. Leibreich and Richardson, being solid, of a white color; taste pungent and disagreeable,

like that of a stale melon and chlorine. It dissolves with some difficulty in cold water, more freely in hot water, but requiring equal parts, by weight, for a perfect solution; unaffected by nitrate of silver, and is slightly clouded by a solution of permanganate of potassa. Its physiological and therapeutical action has been tested upon frogs, men, and women.

*First Experiment.*—On a large frog; was administered hypodermically into the inner part of the thigh, half a grain (gr. ss.) of Hydrate of Chloral in twenty minims of distilled water (xx. m).

Nine minutes after, the frog was examined. The respiration was increased to twenty (20) a minute, but not the slightest narcotic result was perceived; skin cooler than natural. Waited thirty minutes, and again injected (gr. ss.) one-half a grain. Soon after there was a drooping of the head, relaxation of the limbs, closing of eyelids (but no alteration of pupil), followed by profound stupor. In the course of ten minutes this animal became quite rigid, in fact cataleptic, for when the limb was stretched out it retained that position. There was no tactile sensibility, not even when pricked or cut. When the web of the foot was placed under the microscope, two hours after the second injection, the blood was found of a dark-red color, in active movement. This was witnessed also by my son, Mr. (now Dr.) Charles S. Turnbull, and Mr. (now Dr.) G. B. Dixon. At this time the animal seemed almost dead, and no movements of respiration could be seen. The only motion was a feeble one of the heart, confirming Leibreich's views that the heart is the last part that dies while under the influence of hydrate of chloral.

*Experiment Second.*—Another frog was treated in a similar manner, with one grain (gr. j.) of hydrate of chloral in solution, but it passed rapidly into the deathlike state. The heart's action was so feeble as not to be heard.

*Experiment Third.*—A third frog was treated with three-quarters of a grain of hydrate of chloral, and was then carried to a meeting of the Philadelphia County Medical Society, where it was exhibited to the members present, in the apparently dead condition; and yet there was a movement of the circulation under the microscope. On removing the sternum, one hour after, the heart was found acting slowly, but soon

stopped; and on stimulating it by friction the heart would again act, as in all cold-blooded animals.

It will be seen, by the above experiments, that there are three stages of the action of chloral on animals. First, soporific; second, sedative; third, relaxant.

Second, deep sleep, with diminished sensibility, and cataleptic state, with rigidity. The third state is a sleep so profound that it looks like death; and unless revived, death supervenes.

*Experiment Fourth*, which demonstrates the fact that in small or moderate doses, from  $\frac{3}{4}$ ss. to 3, hydrate of chloral is not an anæsthetic, but is hypnotic, or a producer of sleep. Lady, aged 45, suffering from gastric fever, with distressing nausea and vomiting, with diarrhoea, but unable to sleep for several nights, even under the influence of the camphorated and simple tincture of opium, also Dover's powders (pulv. ipec. et opii, U. S. P.), by enemata. Dissolved gr. xx. of hydrate of chloral in a wineglassful of sweetened water, which was administered at 8 P. M. There was considerable heat of skin; pulse rapid and feeble. It was taken while in the recumbent position, and no sickness or disagreeable results followed. Her stomach being empty, in half an hour she was sound asleep.

At 12 P. M. pulse quiet and slow; breathing so gentle as not to be noticed; when, feeling uneasy on account of the very quiet sleep, she was simply touched on the hand; she at once awoke, inquiring "if we wanted to wake her?" She changed her position, and again went to sleep, and slept without interruption until 8 A. M. the following morning.

*Experiment Fifth*.—Lady, aged 34; has had a tumor removed from the uterus, and some months after she began to suffer the most distressing pain, with swelling in the region of the right ovary. All the domestic remedies, as mustard plaster, hot fomentations, with hops, etc., had been tried in vain, also the application of opium and chloroform, but without benefit, being unable to take either morphia, opium, or any of its preparations. She was directed gr. xx. of the hydrate of chloral in water and syrup. This was taken in two doses, resulting neither in sleep nor relief of pain. She was then directed thirty grains (gr. xxx.), after taking which she had three hours of sleep, and by repeating the half-drachm doses she

was entirely relieved of the pain, and was able to sleep without being disturbed by noises or touch.

In this case the hydrate of chloral did not act as an anæsthetic until fifty grains (gr. l.) had been administered.

*Experiment Sixth*.—Young married woman, aged 25, with typhoid fever; pregnant, and threatened with abortion at third month; pulse 100; temperature of skin 107; dry, with petechial eruption on abdomen on fourteenth day; unable to sleep; had taken at various times Dover's powder, bromide of potassium, tincture of opium, morphia, etc., but with very unfavorable effects. Directed the hydrate of chloral in water and syrup of orange flowers. The first night she took twenty grains (gr. xx.), but it was rejected by the stomach; still she slept for a short period; second night she had ten grains (gr. x.); still rejected; third night, five grains (gr. v.), and slept longer than any night since she has had the fever; less fever; heat of skin reduced to 98°, and pulse 90.

On the fourth night she aborted, and foetus was discharged, softened; lost considerable blood; placenta retained. The os was plugged, and in the morning removed the plug; but the placenta did not all come away for several days; convalescent at the end of the sixth week. The hydrate of chloral was employed from the 10th of February until the 16th of March. There is no doubt that it hastened the recovery very materially, by reducing the temperature of the skin, allaying pain and nervous excitement, which kept up the fever. The point of importance that these cases teach is that small doses are to be employed with persons of feeble constitution, or where there has been loss of blood. It also proves that it reduces the temperature of the skin; this fact we have since proven in numerous cases.

*Experiment Seventh*.—A comparison between the effects of morphia and hydrate of chloral. Mrs. N., aged 34; has suffered with paroxysm of intense pain in the hypochondriac region, with obstruction of the bowels, followed by inflammation of a diphtheritic character, evidenced by cast being discharged. The only means of relief was by the use, hypodermically, of from half a grain ( $\frac{1}{2}$  gr.) to three-quarters of a grain ( $\frac{3}{4}$  gr.) of morphia, which, although it gave her almost instant relief, was invariably followed by much distress in her

head, with nausea and vomiting. By the use of seventy grains of hydrate of chloral she was relieved of her pain, and slept; and the most agreeable feature about the effect was that she awoke from her slumbers without any of the unpleasant symptoms in the head and stomach.

*Experiment Eighth.*—Mrs. R. M., aged 30, suffering in like manner, was relieved by sixty grains (so that 60 to 70 grains of chloral are about equal to half a grain of sulphate of morphia.)

*Experiment Ninth.*—Cases of gout and rheumatism are better treated by adding soda or potassa in conjunction with chloral, or the bromide of potassium. Samuel H., aged 54, was exposed to a sudden change of temperature of twenty degrees reduction, without being suitably clad, and was attacked with acute rheumatism of the limb and knee; he was directed an anodyne and a stimulating liniment with Dover's powder (pulv. ipecac. et opii, ʒj.) gr. xx, but without relief. A mixture was then ordered him of aromatic water and syrup, of fifteen grains of potassæ bicarb., and thirty grains of hydrate of chloral; he took but five doses, when he was free from nervous excitement and pain, and finally slept. By its occasional use he had no return of the disease.

*Experiment Tenth.*—John H. B., aged 45, while suffering with acute gout in his hands and hip, was ordered three ten grain doses in water and syrup of chloral, but as it caused him so much excitement, the soda bicarb. was ordered with it to get rid of the soda salts in his joints. This had the desired effect, and by its use for ten nights all his acute symptoms disappeared; only a certain amount of stiffness remained.

*Experiment Eleventh.*—Men require, as a general rule, larger doses than women, and in brain difficulties bromide of sodium is an admirable addition.

John H. N., aged 56, suffering from amaurosis from atrophy of the optic nerve. Was exposed to cold, and contracted bronchitis, which passed along the eustachian tube to the middle ear, causing otitis media, followed by intense pain. He was ordered thirty grains of hydrate of chloral, without relief; a second dose of the same quantity, with a drachm of bromide of sodium; this relieved the pain, and gave him a quiet, good night, and he awoke with a slight discharge from the ear, but free from pain.

*Experiment Twelfth.*—Its value in dis-

eases in little children.—We have tested in three typical cases during the heat of the summer of 1871, little children suffering from restlessness and cholera infantum. In almost every instance the child was able to sleep without pain or disturbance of the brain, by the soothing hypnotic influence. The chloral was combined with an aromatic syrup; also chalk, and a small portion of port wine or syrup of brandy (made by burning the strong brandy) with sugar. Our dose was, for a child of 12 months, one grain of hydrate of chloral, half grain of prepared chalk and half grain of powdered gum arabic in each tablespoonful; also, some mint, aniseed, or cinnamon water, so as to disguise the disagreeable taste. The hydrate of chloral should be increased in the proportion of one grain for each year.

(To be Continued.)

#### NOTES ON A CASE OF ECLAMPSIA.

By WM. C. CROOKS, M. D.,  
Of Philadelphia.

The following case is given for what it may be worth statistically, it being the second case coming under the writer's immediate observation, in both of which the premonitions were well marked, though the duration of the precursory phenomena in one case was but three or four hours; in the other, full twenty-four hours' warning was given; but the family, ignorant of the approaching danger, gave no alarm until a few hours before the invasion.

Mrs. H., æt. 16, a primipara—near full term—robust, and of vigorous constitution, was, on January 15th, 1872, placed under my professional care. For several hours prior to my visit the patient had suffered from a general malaise; was excitable and irritable. Succeeding this, difficult respiration; insensibility of the sense of touch; disturbed vision, and a poignant pain over left temple. When first seen, 5 P. M., these symptoms had acquired a degree of great intensity; a half hour later the patient passed into a comatose condition; could with much difficulty be aroused; replied to questions incoherently; pulse full, slow and hard; skin hot and dry; animated expression of face; bowels constipated; the bladder contracted and empty. At 6 P. M. the first well defined convulsion was produced. Between that hour and 8 P. M. four others were ushered in with increased intensity at each

recurrence. After that hour the patient remained continuously and entirely insensible. Spasms severe, frequent, and remittent; os rigid, and neck obliterated.

The most decided treatment was demanded—as the nature of the case will suggest—from the first moment the case was seen. An active purgative enema was at once given; 2 grs. calomel and 1-16 grain sulphate atropia given by mouth every half hour to facilitate the action of the bowels and assist in dilating the os; ice to head; cold aspersions upon the face and chest; local blood-letting by means of leeches applied behind the ears and to the mastoid processes. Extracted 20 oz. first application; reapplied in half an hour, and extracted 14 oz. more; administered chloroform by inhalation, to the amount of 8 oz., between the hours of 8 P. M. and 4 A. M., without producing any appreciable effect, or sensibly lessening the severity of the almost constant convulsive throes. By this time the os had become sufficiently dilated to allow the head of the child to pass into the pelvis—presentation, third position of vertex; though the eclamptic convulsions continued unabated, the uterus became passive, making it necessary to deliver the child with forceps. This was quickly and easily effected by my able and skilled friend, Dr. Wm. B. Atkinson, who had been called in to assist in the case. It may be noted here, that to overcome the violence of the

convulsions and control the movements of the mother during delivery, we tried a mixture of ether and chloroform, which acted very satisfactorily; the chloroform alone having failed to produce the desired effect.

The child delivered, the mother remained, under the influence of the anæsthetic, in quietude—with the exception of an occasional twitching—until 8 A. M., 18th January, when the bowels were moved, immediately returning into the same comatose condition, in which she remained until 12 M., when a general convulsion ensued, followed by a free evacuation of the bowels. Gave 20 grs. chloral hydrate, which in a few minutes produced sleep. 3 P. M., breathing more natural, respiration free. 10 P. M., still sleeping, breathing improved.

17th. Awoke once or twice during night, rolled about the bed, restive, incoherent muttering. No return of spasm.

18th. Much improved. Continued chloral hydrate in 5 gr. doses, 3 times daily, directing that it be given oftener if required.

19th. Considered out of danger. Tonics and a good regimen ordered.

22d. Doing well. No change in medicine or diet.

30th. Entirely recovered; condition excellent. Discharged.

N. B. Child had a well-marked convulsion six hours after birth; no recurrence. Mother and child both doing well at this date, August 23, 1872.

## EDITORIAL DEPARTMENT.

### PERISCOPE.

#### The Expectant versus The Mercurial Treatment of Syphilis

The New York *Medical Journal* has a translation of an article by Dr. A. FOURNIER, of Paris, from which we extract the following:—

In the first place, what do we daily observe upon syphilitic patients who are treated carefully, strictly, and perseveringly? What lesions do they present? How does syphilis show itself upon them?

Syphilis with them is a very slight affair, and I certainly do not exaggerate in stating, after a careful perusal of my notes, that in ninety-five times out of a hundred at the

least, if it is treated, it is really mild. Almost all the patients who take good care of themselves run through their syphilis with very little damage to themselves, and only present a small number of manifestations of no gravity, such as non-ulcerating and superficial cutaneous syphilides of the skin, roseolar and papular; syphilides of the mucous membrane showing themselves from time to time in consequence of local irritation (as, for instance, in smoking), adenopathies, a few fugitive pains, temporary thinning of the hair, and other similar slight manifestations. A vast number of my patients have been rid of syphilis at this price, as I have observed years after their infection. I can count by thousands those whom I have seen thus spared by the diathesis in consequence of a

treatment properly followed, and there are other physicians who have observed the same in a number of their cases.

The serious and grave accidents of syphilis are very rare in patients who have been treated, and do not occur oftener than five times in a hundred. This is the reason why we see such a difference between cases of syphilis in private practice and those observed in hospitals. Syphilis in hospitals is frightful and disgusting, and the lesions which cause the patients to enter them are hideous and shocking, and often more or less serious. Syphilis of private practice has other features, and shows itself under a much milder aspect. Never do you see, for example, in these cases, those enormous condylomata which you so often see here, which cover the vulva and anus. With the exception of some few cases, you will never see syphilis assume such a wonderful multiplicity of forms and of phenomena as you so frequently see in hospitals. What is the reason of this difference? It is this: that private patients, at the first sight of their disease, consult a physician, for they are intelligent, and understand the necessity of being treated, and are treated. Others of them are treated in a desultory manner, just sufficient to merely attenuate the lesions of the diathesis; while, on the contrary, the men and women who frequent the wards of a hospital do not take care of themselves, and only seek our advice at the last moment. They allow the disease to fix itself firmly upon them, and they end by developing the grave form of lesions, which are the combined result of the disease, of negligence, of misery, and of the absolute want of hygiene and treatment.

Having shown the course of a case of syphilis which has been treated, let us examine the course of a case which is left to its natural evolution. Syphilis becomes serious and formidable, especially when it is not treated. It then multiplies its blows; it breaks out in lesions of every class and gravity, occupying the whole body; it causes incurable infirmities, and even compromises life. What we see developed in the secondary period, under these sad conditions, are syphilides of every variety, ulcerating and non-ulcerating; syphilides of the mucous membranes; multiple adenopathies, which under these circumstances sometimes degenerate into buboes which we call strumous; alopecia which render the scalp bald, and sometimes this loss of hair is general throughout the body; pains of every variety, horrible headaches, neuralgias, periostitis, myalgias, and arthralgias; iritis, choroiditis, retinitis, liable to impair vision forever, or to destroy it; sarcocele which may result in atrophy of the testes; nervous affections of various kinds; gastric, intestinal, and nutritive disturbances which may predispose to true cachexia; later, in what we call the tertiary period, we find more destructive syphilides, pustulo-crustaceous, serpiginous, and phagedenic, gummy tumors, followed by ulceration and destruction of organs;

exostoses, caries, and necrosis; lesions of the brain and spinal cord, producing hemiplegias, paraplegias, and disturbances of intellect: all of these phenomena producing incurable infirmities, when they do not cause death; visceral lesions of every site, and having an alarming prognosis, not to speak of abortion, miscarriage, and the grave and so often fatal forms of hereditary syphilis.

Is not this contrast between the disastrous results of an expectant treatment, and the usually mild character of a syphilis which is treated, very striking? Still, we too often have the opportunity, here, of drawing such a contrast. Too often do we find poor patients in a very desperate condition, in consequence of their having been treated on the expectant plan. I do not exaggerate when I say that the consequences of this course are disastrous—disastrous is the only word with which I can qualify them. A few observations, taken at random from my notebook, are convincing upon this subject:

Here is a young woman who contracted syphilis when eighteen, and she was not treated. At the age of twenty-six she had a gummy tumor of the velum, and she was not treated then. In consequence, her velum was destroyed, and you now see her with a double infirmity; a nasal twang of the voice, which has become indistinct, almost unintelligible; and regurgitation through the nose of solid and liquid food.

This other woman contracted syphilis from her husband seven years ago. He, wishing to hide his fault, did not have her treated, believing it would amount to nothing. At first some lesions appeared, which were trifling; then, a few months ago, this horrible, ulcerating, tubercular syphilide appeared, which will leave deep scars, and will disfigure this once pretty woman.

The third example is that of a young actor, who contracted syphilis two years ago. Under the advice of a physician, he was not treated. Then many troubles of a serious nature came on, among which was a hemiplegia, evidently due to syphilis. He is left feeble, and paralyzed in the right hand, at twenty years of age, and he almost wishes for death.

The fourth case, which was recently in our wards, contracted syphilis three years ago, and was assiduously treated by homoeopathy, which means that she was not treated. She had syphilides of the skin and mucous membranes, and pains of every sort, periostitis, and other lesions; still she adhered to homoeopathy. Finally she developed a double irido choroiditis, and a gummy tumor of the velum. Her palate was entirely destroyed, one of her eyes has undergone atrophy, and the other has been only slightly improved by a specific treatment instituted too late.

The last example which I will cite, though I have many more, is that of a child of a very respectable family, which was inoculated with syphilis in catheterization of the Eustachian tube. At first the disease was not recognized, and its gravity was not ap-

preciated, and a syphilitic treatment, which was ordered by one of my colleagues, was only pursued for a few weeks. Five years later, a gummy tumor of the velum, and necrosis of the ossa nasi were developed, and the child lost her velum, and her nose is destroyed and flattened. Such are the features of cases of syphilis not treated. Now, this parallel, it seems to me, furnishes a peremptory answer to the problem under consideration. If such is the effect of mercury upon the diathesis in preventing and in modifying either a part or all of its manifestations, if it acts as a safeguard for the future, while it cures for the present, is it not possible to believe that it has a general influence upon the diseases? It would seem remarkable that mercury, which can change a diathesis so fertile in lesions to an affection attended with a group of lesions comparatively mild, which has the power of attenuating, and of rendering the diathesis mild, and of at least controlling its ulterior evolution, could produce such results without acting upon the disease itself.

We are warranted, then, in concluding that mercury not only cures the lesions, but that it attacks their cause, and, in short, exerts a general curative influence on the disease.

These opinions are, if I may say so, my profession of faith. Studying syphilis for years, I have *learned to fear it*, and, as a consequence, I make it my duty to treat it, and I enforce its treatment. I condemn the expectant treatment, and I cannot speak too severely of it, and I say with conviction that a physician who, having in his mind such cases as I have described, would submit his patients to the natural evolution of the disease, when he has at hand so powerful a remedy as mercury, this physician incurs one of the gravest of moral responsibilities. I do not prescribe mercury in a routine manner, or according to tradition, but according to my own personal experience, and my conviction from clinical study. I give it to ameliorate the present symptoms, at the same time in *anticipation of the future*. It is not the present or the immediate future of a patient that I fear; it is his remote future, six, ten, twenty, and thirty years hence. In giving mercury, I endeavor to save my patients from late visceral lesions, and the object I aim at is to render the diathesis mild at present, in order to shield the patients from danger in the future.

#### The Hypodermic Use of Morphia and Arsenic in Asiatic Cholera.

The following remarks, made before the Cincinnati Academy of Medicine by Dr. CUNDELL-JULER, Cincinnati, O., are quoted from the *Cincinnati Lancet and Observer*:—

Owing to the success attending the hypodermic injection of morphia, by medical men in Europe, in cases of cholera, requiring but one or two injections, of from one-quarter to one-half a grain, to subdue cramp and

vomiting, restore the pulse, and re-establish warmth as well as moistness to the skin, even in those most unpromising cases recorded by Dr. John Patterson, of Constantinople, in the *Medical Times and Gazette*, of January 27, 1872, there can be no question that, in the event of a visitation of the cholera epidemic in this country during the present year, this mode of treatment will be very generally resorted to. In anticipation of this calamity, which may be hurried upon us *sans ceremonie*, at any moment, by some infected ship disembarking her cosmopolitan crew upon our shores, I desire to direct the attention of the profession to the remarks upon this subject made by Dr. J. J. Temple, of Covington, Ky., which may be found in Vol. IX, p. 555, of the *Cincinnati Lancet*, for 1866. He having been the first in this country to suggest the use of the hypodermic injection of morphia in cholera, not being aware of the thought having been before suggested, says: "I have the honor to offer, as a suggestion to medical men, the propriety of using hypodermic injections over the epigastric region, of salts of morphia, in such quantity as will most readily and with safety act during the time of violent vomiting and cramps, in Asiatic cholera. This mode of using the remedies, I think, should be attended with favorable results, as it is not immediately expelled the system after its introduction, but remains long enough to make its impression upon, and give its support to the nervous system, through the dreaded contest which is to result in the life or death of the patient." "The salts of morphia," he says, in another part of his paper, "in their several varieties, are, in my opinion, by far the most important. Other remedies, such as strychnine, hemp, and quinine, may be useful as assistants, or even as principals, but morphia I regard as standing paramount in the list." All that has since been written upon the subject of treatment in cholera illustrates the value of Dr. Temple's suggestion, as well as the soundness of his views. There is no doubt that opium, conveyed into the body in one form or another, has always been the chief remedy upon which most medical men have mainly depended in their treatment of cholera; although, in the eager desire to save life, the pardonable use of many absurd remedies and much unnecessary handling of the patient have been resorted to. Almost every known drug in the pharmacopœia has been given, while the most diversified applications have been applied to the body.

Therefore, the true indication in cholera epidemics is, to isolate cholera patients, to prevent the development of the supposed cause of cholera in the dejections, by the early application of disinfectants or fire to the same, to cure the premonitory diarrhœa by chalk, opium, and astringents. But when this simple cholera diarrhœa is suddenly transformed, sometimes in a marvelously brief period, to cholérine, the walls of the stomach becoming irregular and spas-

modic in their action, while the limbs are seized with cramps, showing the want of nourishment, and lost power in the nervous centers, then Dr. Temple's suggestion becomes invaluable, as the morphia "is not immediately expelled the system after its introduction, but remains long enough to make its impression upon and give its support to the nervous system, through the dreaded contest which is to result in the life or death of the patient." In cholera, it is not so much our object to check the diarrhoea, as it is to protect the nervous system from any undue waste of force, carrying the patient safely through a crisis while that nervous force is being equally distributed, by the sedative action upon the nerves of a hypodermic injection of a watery solution of one-twentieth of a grain of arsenious acid twice in twenty-four hours, relieving the immediate symptoms with morphia in the manner suggested by Dr. Temple. There are cases recorded of cholera being cured by the sedative action of arsenic alone. Should, however, external means be deemed necessary to prevent the driving of the blood to the capillaries of the bowels, to the draining away of nearly a fifth of the person's weight per anum, by the spasmodic contraction of the blood-vessels going to the periphery, then the patient might be seated in a chair over a saucer of ignited whisky, the whole enveloped in blankets, till energetic diaphoresis has taken place, keeping the patient in bed between blankets, providing the bowels are more quiescent, till he has had a formed stool. Thus we may save him from passing into the ultimate stages of the disease, where we have paralysis of the nerves presiding over the functions of organic life, or an attempt at reaction in cholera typhoid, in which case the patient is usually carried off by the sequela that follow cholera asphyxia. Dr. Chapman made use of the ice-bag in the treatment of cholera at Southampton, but I learned in conversation with friends in New York that his treatment was very unsuccessful.

#### New Operation of Thoracic Paracentesis.

Dr. T. J. MACLAGAN writes to the *British Medical Journal*:-

Mr. Lister, and those who have adopted his views and treatment, have shown us how incisions may be made into joints, and how psoas and lumbar abscesses may be opened without any of those dreadful consequences which, prior to the adoption of his mode of treatment, used frequently to follow such surgical interference. Why not apply the same practice to the treatment of empyema and hydrothorax? If the entrance of air be an evil to be avoided, why not guard against it by creating an artificial atmosphere around the wound by means of a spray-producer, so that if anything enter the pleural cavity from without it will not be air, but whatever the operator chooses to put in the spray-producer? And furthermore, if we wish to guard against such an

accident during the subsequent progress of the case, why not adopt the same means which are found efficacious in lumbar and psoas abscess, and dress the wound in the same way as surgeons do an opening into such an abscess? I see no reason why we should not do all this, and no reason why we should not expect good results from its adoption. Had I the opportunity, I should certainly put this plan into practice. In performing the operation I should discard the trocar and canula altogether, and simply make an incision with a bistoury. As one does not often have an empyema or hydrothorax to treat in private practice, I have ventured to suggest this mode of treatment to those who may have such cases to deal with.

In performing the operation, I would simply carry out Mr. Lister's instructions for opening a psoas abscess. A filtered solution of carbolic acid, of the strength of 1 in 100, should be put in the spray-producer, and the spray kept playing around the part at which the opening is to be made. The usual precaution should be taken of first inserting a grooved needle or small trocar and canula, previously dipped in carbolized oil (1 of carbolic acid to 7 of olive oil.) The surgeon being satisfied as to the proper part for the incision, a free opening should at once be made into the pleural cavity by means of an ordinary bistoury, also previously dipped in the carbolized oil. The spray, of course, must be kept constantly playing over and around the wound, not only during all this time, but also while the fluid is running away, and must be continued till the dressing is applied. The best dressing is Lister's antiseptic gauze. A strip of this should be cut and folded so as to form a square of six or eight inches; eight, twelve, or sixteen layers may be used, according to the amount of anticipated discharge; this should be applied over the wound as soon as the fluid is all away; until it is applied there should be no intermission in the play of the spray around the wound. If it be considered desirable to wipe the side before applying the dressing, this should be done with a cloth dipped in a solution of carbolic acid twice the strength of that used for the spray. A piece of some waterproof material should be applied over the gauze, and the whole fastened round the chest. The dressing should be changed on the following day, and afterwards every second, third, or fourth day, according to the amount of discharge. If it be desired to keep the wound open, this may be done by inserting a bit of the antiseptic gauze between its edges. The spray must always be kept playing on and around the wound while the dressing is being changed.

The chief advantages of the above mode of treatment are (1) that the withdrawal of the fluid is effected more speedily and efficaciously than by any other mode; (2) that there is no trouble, either to physician or patient, with drainage-tubes or other inconvenience; (3) that the entrance of air, with

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whatever germs or other ingredients it may happen to contain, is efficiently guarded against; and (4) that the patient need not be confined to bed, but may even take open-air exercise before the wound is closed (if his general state permit it) without interfering with the efficacy of the treatment. In some cases this last recommendation is one of great importance.

To one other point I would refer before concluding. The existence of tubercle in the lung is regarded by some as a reason for not having recourse to paracentesis in cases of effusion. I am of those who take a diametrically opposite view, and see in the presence of tubercular mischief only a reason for avoiding unnecessary delay. The chance of ultimate recovery in such cases is, of course, very much less than it is in cases in which the lung-tissue is sound. But the chance of improvement in the tubercular case becomes less and less the longer the fluid (which is generally purulent or sero-purulent) is allowed to remain in the chest, irritating an already damaged lung, and further undermining an already impaired state of the general health. In such cases we should tap early. The mode of performing the operation which I have recommended appears to me particularly applicable to these tubercular cases.

The exclusion of air in Dr. Bowditch's operation is, of course, as complete as may be; but there are many cases in which it is impossible for the lung to expand freely at once, and in which the fluid cannot be all drawn off unless its place is supplied by something else. Nature abhors a vacuum, and the place which was occupied by the fluid must, to permit its full evacuation, be taken by the lung, by air, or by an artificial atmosphere; the first is the best, but is not always attainable; the second is the worst, and is to be avoided if possible; there remains only the third, which may be formed of anything capable of being converted into spray. I have suggested Mr. Lister's carbolic solution as probably the best. I believe, too, that this mode of operation and after-treatment will be found to remove the necessity for drainage-tubes in cases of empyema. Should the fluid be fetid, I should not hesitate to inject a solution of carbolic acid of the strength of 1 in 50. To exercise its full protective influence, the spray should be fine enough and dense enough to thoroughly replace the air all round the wound.

#### On the Corpora Striata.

At a late meeting of the Medico-Chirurgical Society of Edinburgh, Dr. McKENDRICK read a paper on the corpora striata, with the results of experiments. After a few preliminary remarks regarding the vague character of our knowledge of the functions of the different portions of the encephalon, and having pointed out some of the difficulties in the way of attaining trustworthy results by experiment, Dr. McKendrick described the general anatomy and histological struc-

ture of the corpora striata, including their connections with the crura cerebri. He found in these organs in pigeons, that the upper surface was essentially molecular. Deeper down, about half-way through the thickness of the bodies, there were numerous pyramidal nerve-cells, similar to those found in the convolutions of the cerebrum, while at the deepest part the cells were less numerous, and resembled the smaller multipolar nerve-cells of the spinal cord. The nerve-tubes increased in breadth as one proceeded from the surface to the base. He described the development of the corpora striata, pointing out their early appearance in the embryo as thickening in a floor of prolongation or diverticulum from the anterior cerebral vesicle, the cavity remaining as the lateral ventricle. He discussed briefly the comparative anatomy of the organs, tracing them from the lower to the higher orders of vertebrata, showing their persistence from the amphioxus upwards. He alluded to the views held by several comparative anatomists, that the cerebral lobes of fishes might really be regarded as corpora striata alone. The brains of the reptile and of the bird were also described; and it was shown that in both, particularly in the latter, the great mass of the hemispheres really consisted of corpora striata, the cerebrum proper being represented by only a thin layer of grey matter over the ventricular cavity. He then described the results of thirty (as representing a much larger number of birds) experiments on pigeons, as follows:—1. After removal or injury of the cerebral hemispheres alone, or along with the corpora striata, there was a persistent diminution of animal heat to the extent in pigeons of 6 deg. to 8 deg. Fahr. 2. Removal of one of the cerebral hemispheres from a pigeon had no permanent effect. 3. Removal of the anterior half of both cerebral hemispheres, without injuring the corpora striata, was negative in results. 4. Removal of the posterior half of both cerebral hemispheres occasioned no marked effect, except that the birds took no food; and required to be stuffed. 5. Careful removal of the thin layer of grey matter representing the cerebral hemispheres in pigeons was followed by a diminution of intelligence, volition, and sensation. 6. Removal of the hemispheres along with the upper half of the corpora striata, caused complete loss of intelligence, volition, and sensation. 7. Injury done to the deeper portions of the corpora striata was followed by severe convulsions, and afterwards by paralysis of both extremities, and was always soon fatal. 8. When one hemisphere, together with the upper part of the corresponding corpus striatum, was removed, there was loss of vision on the opposite side; but removal of the hemisphere alone was not followed by this effect. 9. Injuries inflicted on the corpora striata by passing a narrow double-edged knife through the side of the head were negative, unless the deeper parts of these bodies were involved. 10. Removal of the cerebral hemispheres alone,

without injury of the corpora striata, was not followed by complete loss of hearing or sight, but if the upper part of the corpora striata were removed, these senses were abolished. 11. Injury to these parts of the brain was followed by fatty change in the muscles of the bird, if it survived a month or two after the operation. 12. The corpora striata have a twofold function: the lower or deeper part being concerned in motion, the upper part being probably the instrument of crude sensations, sensations followed by no ideas or attendant images.

#### Climatology of Kansas.

Dr. T. SINKS gives the following description of Kansas in the *Leavenworth Medical Herald*:—

The State of Kansas lies between 37° and 40° north latitude, and between 94° 30' and 102° west longitude. The eastern border is elevated 900 feet above the level of the sea, and gradually ascends toward the west at the rate of about three feet per mile. The surface is that of gently undulating prairie, interspersed with numerous streams, the margins of which are skirted by timber. The general direction of the principal streams is from west to east. There is an entire absence of lakes, swamps, and marshes, and the streams seldom overflow the alluvial bottoms along their course. The natural drainage of the State is most excellent, the descent of the beds of the streams being sufficiently great to produce rapid currents.

The measure of moisture precipitated in rain and snow for the year averages 31 inches at the eastern border of the State, and 24 inches at the western border, gradually decreasing toward the west.

Observations at Fort Leavenworth for 35 years give the following averages for the seasons: Spring months, 7½ inches; summer, 13; autumn, 7½; and winter, 3½ inches. The precipitation of rain for the month of March shows a small increase over that for either of the winter months. The quantities are doubled in April and again doubled in May, the mean maximum occurring in June and the minimum in January. The geographical position of the State, its proximity to the plains, its exposure to the cold currents from the Rocky Mountains and the warm ones from the Gulf of Mexico, the conflict of these with the great normal west wind of the temperate latitudes, all combine to produce confusion from which it is almost impossible to eliminate anything that may be called general. However, the prevailing winds in the summer are from the southwest, south, and southeast; in the winter from the northwest, north, and northeast, in the order of frequency as enumerated. During the spring and autumn these points are about equally represented. Direct east or west winds, except of a fitful character, are quite infrequent. The average force of the winds is greater than that for the Central States east of the Mississippi, and they are also more constant. The an-

nual mean temperature at Leavenworth is 52°, at St. Louis 54°, at Cincinnati 53°, at Pittsburg 51°. There is also quite as close a resemblance in the monthly mean temperature at these points, showing, as before remarked, that the isothermal lines pretty closely correspond with the lines of latitude.

From the foregoing the natural inference would be that the prevailing diseases in Kansas were similar to those of the States lying east of us, and between the same parallels of latitude. In a general sense this is true, but the general drainage of the country, the porosity of the soil, the purity of the atmosphere, and the fact that the winters are quite dry in comparison, all contribute to reduce in amount and virulence all the malarial disorders, and in the winter particularly, inflammatory diseases, notable among which may be mentioned pneumonia and rheumatism. Adopting the nomenclature heretofore mentioned, the climate of Kansas would, we think, be very appropriately termed a bracing one, and without exaggeration a very healthy one for this latitude.

The foregoing is merely a brief review of the salient points of the subject under consideration, but it is perhaps as full as would be advisable under the circumstances. While the earth continues to revolve, the sun to shine, the winds to blow, the rains to descend, and the seasons to come and go in their regular succession, we must have ever present with us the instruments for our own destruction; much may be done, however, to blunt their keen edges, and to ward them from our vitals. Climate we cannot hope to change, but it is within the compass of human ability to obtain a knowledge of its varieties, of the diseases peculiar to each, and also to modify, to a certain degree, the baleful influence of some varieties as well as to avail itself of the benign influence of others.

#### Dislocation of the Metacarpus.

The following case is reported in the *New York Medical Journal*, by Dr. MASON:—

J. B., Irish, aged thirty-five, sailor, applied for treatment at the out-door department of the Long Island College Hospital, on the 15th of June last, at 2 P. M. He gave the following history: About 6 P. M. the day previous, while working on a dredging machine, he attempted to disengage a rope which had become kinked in passing over a "winch," turned by steam-power; while in the act of so doing, his hand was caught by the rope and forcibly flexed upon the wrist, and at the same time the ulnar side was twisted inward. The engine was promptly stopped, and, on freeing his hand, he discovered that his fingers were severely lacerated, and that he had "started a bone on the back of his hand." On examination, a distinct bony elevation was observed on the back of the hand, in a situation corresponding to the carpo-metacarpal joint of the fifth metacarpal bone. It was exceedingly tender when pressed upon. Careful examina-

tion eliminated fracture of metacarpal bone at this point, also displacement of any carpal bone. There was very slight œdema at the seat of injury, so that the sharp edge of the articular surface of the proximal end of the metacarpal bone could be readily traced through the skin.

Forcible flexion of the metacarpal bone increased the deformity. Firm pressure, directly downward, did not tend in any way to lessen it.

A diagnosis of dislocation backward of the proximal end of the fifth metacarpal bone was thus made out.

This diagnosis was confirmed by Dr. R. Hesse, Dr. Charles P. Donelson, and several members of the graduating class then present.

The patient was now anæsthetized, and reduction easily effected by fixing the thumbs firmly against the articulating surface, and pressing steadily forward, at the same time extension being made at the distal extremity of the bone.

The first effort proved successful, the bone sliding readily into place with a dull sound, and a sensation not unlike that which accompanies the breaking down of a simple ganglion by forcible pressure with the thumbs.

After reduction, a compress and roller-bandage were applied. At the end of three days these were removed, the patient expressing himself as feeling easier than he did before reduction.

#### Morphia and Atropia.

At a recent meeting of the Medical Society of the Dublin College of Physicians, Dr. J. M. FINNY read a paper on a case illustrating the general physiological antagonism between atropia and morphia. The patient, a lady of nervous temperament, aged 25, was subject to neuralgia; and for this affection Dr. Finny had, on previous occasions, used a combination of atropia and morphia, with both anodyne and curative effects. When he was consulted by this lady, in October, 1871, he determined, as usual, to administer the drugs at the patient's ordinary hour of repose. Instead of the usual dose of one-fiftieth of a grain of sulphate of atropia, at least double that quantity was injected hypodermically; in combination with a fourth of a grain of acetate of morphia. In about twenty minutes Dr. Finny found the patient complaining of great cold, with the tongue dried, parched, and rough; dryness of the throat; speech thick and inarticulate; dimness of vision; scintillation; the pupils much dilated; pulse small and rapid, 130; respirations shallow, 32. Ten minutes afterwards these symptoms had increased; there were great uneasiness and tossing about; delirium had also set in; the patient was grasping at imaginary objects in the air. Dr. Finny now resolved on using morphia as an antidote. With much difficulty, owing to the patient's perturbed state, he injected one-third of a grain of the acetate. In less than five min-

utes the restlessness and jactitation ceased, the skin became warm, respiration fell to 20, and the pulse came down below 100, and was fuller. In ten minutes from the time of the injection deep sleep had set in, and this continued through the night. Next day the lady had quite recovered, except for the still existent dilation of the pupils. The author then detailed the opinions of Dr. John Harley, Mr. Benjamin Bell, and others, on the subject of the antagonism between atropia and morphia, and of the toxic doses and effects of the former. Dr. Mac Swiney said that at 3.30 P. M., on the 14th of last February, thirty minims of liquor atropiæ had been given to a man, aged 40, in mistake for the same quantity of Battley's solution of opium. At 4 P. M. an emetic which had been administered acted, and stimulant treatment was commenced. At 7 P. M. the man was quite insensible, anæsthetic, with eyes open and pupils enormously dilated; pulse very rapid and small; respiration slow; surface cold, and bathed in clammy perspiration. Thirty minims of liquor morphiæ hydrochloratis were now given, and the dose was repeated until three drachms in all of the solution had been taken. Consciousness returned at midnight, when the patient complained that he could not see. He recovered perfectly. Dr. Hayden reported a case of poisoning by belladonna berries in a boy. The leading symptoms were vomiting, unmeaning laughter, and strange staggering gait. Dover's powder was given, and the patient recovered; but the pupils did not resume their normal appearance for two or three days. Dr. Hawtrey Benson, in November, 1869, treated a child, aged 4, for toxic symptoms, consequent on eating belladonna berries. The little patient was quite insensible, with jactitation and floccitation. The face was flushed, the pupils were dilated, and dysphagia and thirst were present. Control over the bladder, also, was lost. The treatment was by tincture of opium given in three-minim doses every second hour. This child completely recovered, having taken fifty-four minims of laudanum within thirty-six hours.

#### On Skin-Grafting.

Dr. BUCHANAN says, in the *British Medical Journal*:—Skin-grafting has been used in the treatment of large ulcers in his wards, and generally with success. To insure a favorable result, it is necessary that the surface of the ulcer be covered with clean granulation, not yielding a copious discharge. The plan which he adopts is as follows. When the graft is to be taken from the skin of a live member, he always takes it from the person who has the ulcer; he does not consider it proper to solicit permission to take it from any one else. The skin is pinched up with a pair of dissecting forceps, and with curved scissors a piece half an inch long and about one-eighth of an inch broad, is cut off to the depth of the true skin. This is cut into three or four pieces, and they are

at once placed on the ulcer, the granulation having been previously shaped to make the surface raw, but not bleeding. A strip of adhesive plaster is made to press the grafts and retain them in their place. The whole ulcer is then dressed antiseptically with a cover of protective oiled silk, over which is applied a bandage of carbolized gauze overlapping the silk by two or three inches, and at least eight folds thick. Under this dressing the grafts may be allowed to lie without the putrefaction of the discharge, even six or eight days; at the end of which time it is common to find some, if not all, of the grafts adhering. Some keep in view till cicatrization begins to spread out from them; others disappear, except that a pale spot indicates where they were; but in most instances the change is perceptible from the place where the graft was placed.

Dr. Buchanan has tried, without success, to engraft epidermic scales scraped from the arm of a healthy person, but has discontinued the attempts.

The most important advance which has been made in skin-grafting is the employment of pieces of skin from recently *amputated limbs*. This he has practiced with extraordinary success. The number of primary amputations in the Glasgow Royal Infirmary is so great that there is never want of opportunity of getting fresh healthy skin, without having recourse to taking it from the living body. As soon as an arm or leg has been removed, for injury, the house-surgeon or dresser carries it to the ward where the case requiring grafting is. He then carefully dissects from the palm of the hand near the wrist, or the sole of the foot near the instep, where the skin is very vascular and the epidermis not too thick and hard, as many pieces as are necessary to do all the grafting required at that time. In taking grafts from a recently amputated member, much larger pieces are used than when taken from the living body; pieces, about a quarter and even half an inch square having often been grafted with success. Dr. Buchanan considers that this aspect of skin-grafting has a far more important bearing on conservative surgery than on the treatment of ulcers. He has been enabled to save limbs which formerly he should certainly have amputated, where the destruction of the integument was so extensive as to preclude all possibility of cicatrization unless by the assistance afforded by skin-grafting.

Dr. Dewar has found the treatment of ulcers by skin-grafting to be very successful. To insure success, he first brings the ulcer into a healthy condition (which is absolutely necessary), with healthy granulations and signs of healing commencing round its edges. The grafts which he uses are from the size of a barleycorn to that of a split pea. Those taken from a recently amputated limb, or other part, he has found to do equally well with those taken from the living subject. Dr. Dewar has found this form of treatment of great benefit in exten-

sive raw surfaces from burns implicating the flexures of joints, and when the cicatrix is apt to be followed by contraction.

#### Cancer from a Blow.

The following case is reported by Dr. Brock, in the *Leavenworth Medical Herald* :—

Two negroes became pugilistic; one struck the other a heavy blow with a weight, on the upper lip, directly under his nose, which of necessity came in contact with his teeth. The lip was mashed into a black jelly; his front teeth were caved in. He replaced his teeth, and was able to masticate with them in a short time, although they remained loose to some extent. This was three years ago. The teeth gave him occasional pain, and in time there was a fungus growth on the gums. I saw the patient first about September of last year; examined the parts, and was not entirely satisfied as to the nature of the difficulty. I did nothing at the time; was informed by the patient that some portions of the fungus growth had been removed by another physician. I explained to him about the nature of the difficulty, and what the operation would be. He left, and I saw him no more for two months. When next I saw him I felt confident that it was a cancer, involving the injured parts, and also the superior maxillary and bones of the nose. The mouth was rapidly filling up with fungus. He consented to an operation. Drs. M. S. Thomas and Van Duyen assisted. I removed six front teeth, and then made a section of the superior maxillary. Here we rested.

After carefully surveying the ground we concluded not to interfere further, as another operation would necessitate the removal of the whole of the superior maxillary, nasal bones, and, in all probability, his eyes—then with no prospect of a permanent cure. We used no chloroform. In a very short time the mouth began to fill again with the nodular tissue, a part of which I again removed. It is surprising how very rapidly it grows. I consider this case one of simple injury, of a local character, one that would have insured success by an early operation. What gave rise to cancer in this case, I am sure I can't tell you. I know there was a constant source of irritation; but why not necrosis or caries, instead of cancer?

#### Syphilitic Epilepsy.

Dr. WILKS, in *Guy's Hospital Reports*, remarks that any departure from the usual symptoms of a true epileptic attack should excite our suspicion as to its nature and suggest some special exciting cause for it. In the "petit mal" or "grand mal" the loss of consciousness persists but for a minute or so, and after the attack the patient slowly recovers and remains well until the sixth fit. But in albuminuria, or epilepsy arising from a local cause, as syphilis, or in renal and

syphilitic eclampsia, as the fits might be called, the paroxysms occur in rapid succession, and coma may exist in the intervals; there may also be convulsion without loss of consciousness, or the attack may be accompanied by paralysis of one side. These constitute a certain class of symptoms which are at once suggestive of a local cause, as syphilis, even before the history is obtained, especially if there have been a succession of fits occurring at short intervals, accompanied by partial hemiplegia. Under these circumstances the disease may be considered due to a syphiloma between the membranes and brain; and if this be situated in one hemisphere, as is usually the case, the irritation causes the convulsion to be unilateral or predominant on one side, and to be followed by a partial paralysis of that side. At the same time, as only one hemisphere is involved, the consciousness sometimes remains. This peculiarity was noticed as long ago as 1835, by Dr. Bright. Dr. Wilks gives the history of three cases that have fallen under his care, in which great improvement resulted from the administration of the bichloride of mercury and iodide of potassium, remedies which he maintains would certainly not have been given if the symptoms had been judged of alone, and no history of the prior existence of syphilis had been obtained.

#### The Antiseptic Treatment of Small-pox.

This subject is carefully examined by Dr. SAMSON, in a late number of the *Practitioner*. He sums up as follows:—

We will now consider the practical duties of one who would fairly put in force the Antiseptic Treatment of a Case of Small-pox.

**I. EXTERNAL DISINFECTION.**—It is to be recollected that at the time when any morbid symptoms become manifest, the poison of the disease can be exhaled from the system and can infect other persons. It is therefore a first duty that all superfluous, especially woolen, materials which can arrest and retain the poison shall be removed from the sick-chamber. It is the air into which the poison is exhaled that is now the chief medium of transmission; therefore our most obvious duty is to disinfect the air. It has been declared that all methods of air-disinfectants are necessarily futile; that it cannot be charged sufficiently with any antiseptic agent to exert any appreciable effect on the germs of disease. Seeing, however, that common air supplied in moderate quantity with certain antiseptic agents will kill animalcules, and will arrest the manifestation of fungi, and looking to the evidence attesting the good practical effect of such attempted disinfection in various epidemics, I must believe that the minute zymogens are capable of destruction even whilst floating in the air. The most valuable agents to employ for disinfecting the air of the sick-chamber are sulphurous acid and carbolic acid.

**Sulphurous Acid** is easily generated by burning sulphur upon an iron plate, which for purposes of safety should be placed in the middle of a vessel containing water. The only objection is the pungency of the evolved gas; but Dr. Hjaltelin, who especially recommends this method, says that his small-pox patients soon became accustomed to it, and even experienced the good effects of it upon themselves.

**Carbolic Acid.**—For my own part I prefer this, because I believe it to be, of all agents we are acquainted with, the most powerful as a disinfectant of the air. My experiments showed that the germs which under ordinary circumstances develop into fungi are entirely killed by a small proportion of carbolic acid present in the air supplied to the soil; and of all the volatile agents I employed, this was the most efficient and most permanent.\* I always advise first that the floor of the sick-chamber be washed with water in which carbolic acid has been dissolved, and that some absorbent material moistened with the liquid acid, whence it may readily evaporate, be continuously exposed. The vaporizer of Messrs. Savory and Moore can be used with great advantage to diffuse the vapor in a larger proportion, but this must be employed only at intervals, or the fumes will become too powerful. The same firm have produced at my request an instrument which provides a sufficient and constant vaporization from an absorbent surface without any trouble or inconvenience.

**II. INTERNAL DISINFECTION.**—The object of this is to disinfect the living body of the sufferer, to treat the disease by acting upon its cause, and to prevent the evolution from the body of active zymogens capable of infecting other persons. For this purpose the agents employed should possess two kinds of qualities; they should be capable of antiseptic action directly upon the zymogens which are contiguous to the mucous surface, and they should be readily absorbed and diffused throughout the system without losing their antiseptic properties. The necessity of attaining the former of these objects is shown not only by the fact that, even before the disease is manifest, infecting molecules are eliminated, but by our knowledge that the multiplication of the poison takes place at many points of the mucous surfaces, as it does within the skin. Disinfection of the air passages is attained by the means just described. Dr. Hjaltelin employed in addition, sulphurous acid internally, diluted in the proportion of a drachm of the ordinary acid with an ounce of pure water, and administered every third hour. Dr. A. W. Foot, in addition to the diluted acid used as a drink, employed gargles of the same agent, sprayed the undiluted acid over nares and pharynx, or used atomized solutions of tannin, carbolic acid, and sulphurous acid for the same purpose, caused the body to be washed with a solution of the

\* The Antiseptic System, p. 104.

acid, and sprinkled it about the bed and bed-clothes. The use of many of these plans is attended with comfort to the patient as well as advantage to the attendants; but as a general rule I am content with allowing the patient to breathe an atmosphere rendered antiseptic, without employing any of the other means. The most important point that we should endeavor to attain is to antiseptize the tissues of the living body. Is this *prima facie* impossible? No, for we have positive evidence that we can administer to a living animal an antiseptic substance which shall permeate all its tissues and entirely prevent post-mortem decomposition. The structures of an animal so influenced will dry up, but will undergo no putrefaction whatever. It is undeniable, however, that great difficulties stand in the way; the chief, when we are first called to see a case of small-pox, a great portion of the mischief is already wrought. The zymogens have done their silent work; in some cases the petechiæ and ecchymoses show that such a destruction is already accomplished, that all means are hopeless. I have had evidence, however, that a petechial case, if it comes under care during the initiatory fever, is not necessarily fatal. One case, petechial and confluent, which presented the most alarming symptoms, completely recovered in my hands, under the antiseptic plan of treatment, in twenty-one days. The agents which have been recommended for internal administration are:—

1. *Sulphurous Acid*.—This, as has been before observed, is a most efficient direct antiseptic, and it has been employed with apparently much advantage by many observers, especially Dr. Hjaltelin; but I think there are great doubts as to its efficacy as an antiseptic upon the tissues. I know of no evidence whatever in favor of the view that it can circulate as a free acid in the blood, while there are abundant probabilities that when absorbed into the blood it is neutralized by the alkaline constituents; in such case it would only reach the tissues in the form of an alkaline sulphite, and that in very small proportion.

2. *Carbolic Acid*.—The evidence is very conflicting as to the efficacy of this agent, internally administered, in small-pox, or indeed any other zymotic disease. It is to be recollected that it is administered with difficulty on account of its nauseousness, and it has a powerful toxic action. To exercise after its absorption any real antiseptic effect, it must be given in large quantities; in my own opinion, a dose that would be efficient as an antiseptic would be highly dangerous; moreover, the character of the symptoms which it induces, especially the cerebral plethora, renders great caution necessary with reference to its administration in small-pox, and it tends not to abide in the system, but be rapidly excreted. According to my view, those who employ carbolic acid as an internal remedy in the usual doses do not really put in force the antiseptic treatment.

3. *The Alkaline Sulphites*, introduced by Polli in 1857, have these characteristics: They are readily absorbed; they circulate unchanged in the blood; they permeate the tissues, so that they can be recognized in and recovered from them as sulphites, a portion only being excreted oxidized as sulphates; they tend to accumulate in the tissues, but yet exert no deleterious action; and they are powerful antiseptics. I believe them to be very valuable agents for internal administration in small-pox. I employ sulphite of sodium in 20 to 30-grain doses dissolved in water, repeated every third or fourth hour.

4. *The Alkaline Sulpho-carbolates*.—According to my views, the action of these salts is as follows: they are readily absorbed, and, like the sulphites, easily permeate the tissues; they are not direct antiseptics like the sulphites, but, becoming decomposed, they liberate free carbolic acid, which exercises its antiseptic action. The antiseptic effect is evidenced upon the tissues and upon the urine, which resist putrefaction. I am accustomed in small-pox to administer 20 to 30 grains of the sulpho-carbolate of sodium every third or fourth hour. Dr. A. W. Foot has lately strongly corroborated my own views as to the efficacy of these agents internally administered in cases of small-pox.\* I can only say that I have seen recovery take place in cases which appeared absolutely hopeless. As to the comparative value of the sulphites and the sulpho-carbolates, I think there is room for doubt. I have feared, in cases which have manifested cerebral symptoms, to administer the latter, in case the liberated carbolic acid might aggravate any tendency to encephalic hyperæmia; in such cases I have preferred the sulphites. I have never seen, however, graver symptoms than transient vertigo and headache follow the administration of the sulpho-carbolates in any case.

#### Relation of Chlorosis to Menstruation.

The following remarks are by Dr. WADE, in the *British Medical Journal*:—

We meet with women who all their lives have most copious monthly discharges, and seem certainly none the worse, but rather better for them. We meet, on the other hand, with very many girls who, after a moderate primary menstruation, exhibit symptoms of anæmia; and these increase after each successive menstruation, though these may be, and often are, smaller in amount. The period of relief also becomes shorter.

These remarks, you see, are intended to meet the objection that chlorosis cannot be the consequence of menstruation, because the menstruation which has preceded it, and which I take to be the cause of it, has been small in quantity.

In some cases, however, menstruation is established, and proceeds in orderly and re-

\* *Dublin Journal of Medical Science*, March, 1872.

gular manner for some, even it may be for many months; and very rarely, but still sometimes, without any apparent excess of menstruation or obvious cause, symptoms of chlorosis show themselves. Well, it is not difficult to understand that, if the system have been just able to reproduce in the intervals the blood lost at each successive period, any slight disorder which at all impaired the nutritive powers should destroy the balance which had been previously only just maintained between loss and repair.

A much more common clinical history given to us is that, at a certain menstrual epoch coincident with the commencement of the chlorosis, the girl had caught cold, that the flow had been suppressed, and that this was the cause of her condition. Now, I will not deny that it does sometimes happen that the menses may be suddenly suppressed in this way. I have seen a few—but very few—such cases; and the symptoms produced by the suppression are very serious. But I have not seen that anæmia was one of them. On the other hand, I have minutely investigated a great number of these alleged cases, and have invariably found that a diminution of the flow was the only symptom that had been observed; in a large number of them—indeed, the greater proportion—there was no other evidence, either direct or indirect, to show that the restricted discharge had resulted from any exposure to cold or wet, or from any catching of cold. The statement which is made to us, as if it were the statement of a fact, is merely the statement of an opinion. The menses have been scanty; and the girl, or more frequently her mother, knowing no other explanation, *supposes* that she *must* have caught cold. The constancy with which this statement can be exposed by searching cross-examination is really quite ludicrous.

These cases, some of them, come under the category which I previously described. But in a much larger number the real explanation is exactly opposite to the supposed one, and in complete accordance with the theory which I have been explaining to you. The true clinical history is this. The menstruation immediately preceding the first scanty one has, from some accidental cause—dancing, riding, traveling, or some over-exertion or unusual excitement—been excessive; that is, as compared with the patient's usual habit. The scantiness of the succeeding period is what is called "an effort of nature" to diminish the ill effects of a renewed hemorrhage upon a system which had not completely recovered from a previous one. And I may here remark that, as a rule, the worst cases of chlorosis are those in which the energy of the reproductive organs is not to be suppressed by the incapacity of the system at large to support the tax thrown upon it; in those cases, in short, in which the menses, in spite of the bloodlessness of the body, continue to reappear month by month. That the blood-making organs should at first fail, but subsequently be able to respond to the unusual tax upon them

which is caused by a first menstruation, is quite in harmony with the physiological laws governing other organs. If we suddenly call upon a muscle for unwonted exertion, the muscle either fails to respond, or afterwards suffers. But the same muscle may, by a sufficiently gradual exercise, be well able to expend not only that, but a much greater amount of force, without inconvenience at the time, or unpleasant consequences afterwards.

I will mention here, what ought perhaps to have been mentioned earlier, one reason why the profession have supposed chlorosis to precede menstruation more frequently than it really does. Many mothers, when asked whether their daughters "have ever been regular"—which is the usual way of putting the question—will answer "No;" meaning thereby that the function has never been regularly established. You must, if you desire the truth upon this point, put the question in a more precise manner, and ask whether there has ever been any menstrual discharge whatever. You will then, if you insist upon a precise answer, get the precise truth. It is very important, in examining patients, to let them tell their own tale, but it is equally important to cross-examine them upon their statement. They are so much in the habit, and especially so in these cases, of mixing up fact and opinion, that you will not in any other way arrive at the truth. The random way in which many ill-educated persons—and these are to be found in all classes of society—answer even vital questions, is often little short of astounding. It is worth mentioning that even in very many women who are not at all chlorotic, the menstrual flow produces just the same effect as any other small bleeding would do, viz., a feeling of lightness and elasticity.

I have now laid before you with sufficient fullness my reasons for thinking that the following propositions are just.

1. Chlorosis occurring in young women who have menstruated at all is commonly the result of the loss of blood by the menstrual discharge.

2. When amenorrhœa occurs in these persons, it is a consequence and not a cause of this anæmia.

3. Both primary and subsequent menstruations produce on the system the same effects that would be produced by any other hemorrhage of equal amount.

These views are not only interesting to the abstract physiologist or pathologist, but they have a very distinctly practical bearing.

I can give you no better advice upon the general principles of treatment than you will find in the text-books generally. The patients generally soon recover with rest, good diet, and steel. Where, as sometimes you may find, steel alone will not cure, you may combine with it some preparation of manganese; or, what is often better, substitute arsenic. Constipation is a very common result of hemorrhage; it was so in the third case of epistaxis before mentioned; it

is not, therefore, a matter of any surprise that it should be, as it is, common in chlorosis. Here it seems to depend in a great measure upon the torpor of the colon. On this account aloes is often a useful purgative, and so is strychnia. If you should find, which you probably will not, that the former drug increases the menstrual flow, you will substitute one that does not. This observation is not superfluous, since we find that so judicious an authority as Dr. Wood says: "If amenorrhœa exists, aloes is the appropriate laxative," meaning thereby to endorse the view that aloes excites the ovario-uterine system. You will scarcely be disposed to follow the advice which Dr. Aitken gives on the authority of Vogel: "Where a high degree of serous plethora exists, and produces violent excitement of the vascular system, palpitation of the heart, and congestion of the head, venesection may be practiced. It not only acts as a sedative, but aids the radical cure of the disease, inasmuch as it causes the subsequently administered ferruginous preparations to be borne more easily. Both general and local blood-lettings may be used; but the blood must be taken in small quantities, a couple of ounces at a time being quite sufficient."

In such a case you should diminish or omit the iron for a time, and use morphia or bromide of potassium, with chloral, or valerian, or stimulants in small quantities. Instead of seeking to increase the quantity of the menstrual discharge, you will rather aim at diminishing it, particularly in cases where it keeps up in quantity whilst the patient is becoming more and more chlorotic. This diminution we may effect by keeping the patient in bed or on a couch for a couple of days before menstruation begins, and also whilst it is in progress; giving, at the same time, some bromide of potassium till the period is half over, and then using extract of ergot. Digitalis in some cases checks the flow, and this may be used instead of ergot when this drug seems to have no effect.

#### Cases of Liver Disease.

The following instructive cases are reported by Dr. E. L. Fox to the *British Medical Journal*.—

The cases referred to in this paper were not all due to one and the same condition of liver, but they were examples of peculiarities which are either unusual or obscure.

A man, aged 50, was a patient in the Bristol Royal Infirmary, under Dr. Brittan (by whose courtesy I am allowed to mention the case here). He had only been ill for seven weeks, with intense jaundice, and the troublesome itching consequent on the jaundice. He had had hemorrhage from various surfaces, and had passed blood *per anum*. The liver during life was seen to be much enlarged, but was smooth. At the necropsy the heart was found to be fatty. The lungs were healthy. There was a little recent inflammation of the lower portions of the right

pleura. The liver was very large; the ducts were much dilated all through the organ. The gall-bladder was enormously large, full of black bile. The ductus choledochus was very large down to within half an inch of what should have been its entrance into the duodenum. Here it was entirely blocked, not with gall-stones, nor with any thickened secretion, but apparently as the result of inflammatory thickening. What should have been the duct was transformed into fibroid tissue, and could never have again become patent. The pressure of the occluded bile had very nearly produced an artificial opening into the duodenum lower down. The spleen was rather large. The mucous membrane of the small intestine through its whole extent was covered with blood. The kidneys were much tinged with biliary pigment.

A gentleman, aged 63, was first seen in May, 1870. He had been ailing for two months previously, and had complained of constant slight pain in the right hypochondrium. About five or six weeks previously he became sadly jaundiced, and was very actively treated with calomel and podophyllin. In the first week of his illness he once passed bile *per anum*, never since. He was always a spare man, but rapidly emaciated. He had lately been taking Turkish baths. Twenty years ago he passed some gall-stones, but without pain and without jaundice. No tumor could be felt. There were some tension and tenderness over the head of the right rectus abdominis, especially on deep pressure. There was no ascites. He had intense jaundice. The bowels were confined. A little albumen was present in the urine. Sir William Jenner came down to see him, and gave as his opinion that the disease was probably a cancerous gland pressing upon the common duct, but that it was possible that the patient was suffering from a thickening, and a remediable thickening, of the duct itself. He suffered terribly from the icteric itching of the skin, and sank, rather suddenly, about a month after first coming under my observation. Death was preceded by twelve hours of coma. No *post-mortem* examination was allowed.

A surgeon, aged 70, who had been doing a large country practice for many years, was first seen in the autumn of 1870, at his own house, some miles from Bristol. He had been ailing for ten months, and had been jaundiced for the last six months of the time. His state at the date of my visit was one of great mental and bodily depression, and he was much emaciated. The left lobe of the liver was enlarged, but smooth. There was no pain or tenderness. The itching of the skin was terrible. A very little bile had been passed at stool on several occasions during his illness. He answered questions pretty well, but wandered slightly at times. The diagnosis lay between cancer of the lower surface of the liver and a remediable thickening of the duct itself. Having regard to the latter possibility, he

took iodide of potassium, and pills containing blue pill, belladonna, and taraxacum. Six months afterwards he paid me a visit at Clifton, looking ten years younger, and perfectly well.

These four cases illustrate to my mind this somewhat unusual condition, subinflammatory thickening of the duct itself. The diagnosis between this affection and cancer of the lower portion of the liver is very obscure and difficult. I think that in this condition the jaundice is more sudden, the icteric itching more intense, the emaciation more rapid, the tendency to cerebral symptoms greater than in cancer, whilst the pain or tenderness over the region of the liver is generally less. But either may cause death; either may lead to congestion of the portal vessels, and, as a consequence of this, to hemorrhage into the stomach or intestinal canal, rather than to ascites. Three out of these four patients were very sober men, and of the fourth I have no record.

I believe it to be especially a disease of advancing age, and to bear the same relation to the catarrh of the duct often met with in the jaundice of childhood, that fibroid induration of the lung bears to catarrh of the bronchi and air-cells.

#### Hooping-Cough Treated by Chloral.

Dr. P. BRYNBERG PORTER, Attending Physician to the New York Free Dispensary for Sick Children, and for Diseases of Women at the Northeastern Dispensary, says, in the *New York Medical Journal*:—

Nearly all my cases of hooping-cough having occurred in dispensary practice, which is proverbially unsatisfactory on account of the difficulty of obtaining results, the following are all that I have been able to observe up to the termination of the affection.

I have prescribed chloral hydrate in quite a large number of cases besides these; but the patients either reported but once, or neglected to return at all, so that I could preserve no record of them.

I will state, however, that in not a single case, as far as could be ascertained, was the hydrate exhibited without its being followed by an alleviation of the symptoms.

Thus, in a patient suffering from a very serious attack, complicated by severe bronchitis, I found a very marked improvement at the end of three days from the time I had prescribed it. In this case, however, syrup of ipecacuanha and syrup of squills, with turpentine stupes externally, were employed for the relief of the bronchitis.

In no case was any injurious effect observed to be produced by the chloral.

September 28, 1871.—David R., aged two and a half years. Has been sick for over a week, and the characteristic paroxysms have already commenced. Ordered tincture of belladonna and "brown mixture."

October 5th.—No better. Seems to have derived no benefit from the treatment. Ordered one and a half grain chloral hydrate, in syrup and water, every three hours.

7th.—Marked improvement. Paroxysms much less frequent as well as less severe. Ordered the same to be continued.

19th.—Got so much better by the time the last bottle was used that the mother thought it was not worth while to return for any more. The cough is worse again now. Ordered the chloral in the same dose. Steady improvement.

June 17, 1872.—Annie D., aged twenty-one months. Cough has lasted three weeks. Commenced to hoop one week ago. Paroxysms very severe now. Ordered two grains of chloral every three hours.

19th.—Paroxysms less frequent, but equally severe. Increased chloral to two and a half grains.

24th.—Remarkable improvement. Has no severe paroxysms whatever. Ordered the same continued.

26th.—The cough "broken." Does not hoop at all. The child is practically well.

June 24th.—Mary R., aged ten months. Has had pertussis five weeks. Paroxysms of alarming violence. Ordered one grain chloral every three hours.

26th.—Improvement almost magical. Paroxysms very much less frequent and severe. The little patient much easier and better in every respect, and the mother delighted. Increased chloral to one and a quarter grain.

28th.—The improvement still continues. Scarcely suffers at all from the paroxysms. Increased chloral to one and a half grain.

July 3d.—The hoop entirely disappeared some days ago. Has no paroxysms whatever. Doing capitally in every respect. A little trace of bronchitis all that is left.

As the result of my experience, I would state, therefore, that I am fully convinced of the marked effect of chloral hydrate in alleviating the symptoms of pertussis, and that there seems to be some evidence (though my number of cases are certainly very limited) to show that it has a positive effect in cutting short the disorder. It is the only remedy I have employed in this affection at the Children's Dispensary for some time.

#### Laminaria in Stricture.

In the *New York Medical Record* the following are some of the conclusions arrived at by Dr. NEWMAN:—

1. The bougies must be made from an unblemished piece of the plant, taken out of the middle, made with care, and equal in its whole length and size. If there is the slightest suspicion of unevenness, it should not be used.

2. That part of the bougie which will occupy the portion of the urethra below the last stricture, and particularly that part of the bougie which enters the bladder, must be varnished previously. Mastic-varnish can be used. If the varnish is applied just before using, the laminaria may dilate a little, but if several coats are applied and allowed to dry, no expansion can take place.

3. As any oily substance hinders the expansion, no oil must be used. The bougie

before introduction must be placed in cold water, until it gets a soft, velvet-like touch.

4. The bladder must be emptied before the operation, to avoid uneasiness and over-distension.

5. The urethra ought to be injected with water, to relax the parts and favor the moisture for rapid dilatation.

6. The measure of the urethra and seat of strictures must be carefully taken, notes made, and the bougie prepared accordingly.

7. The bougie, when ready, must be introduced at once, straight, without hesitation, twisting, or resting in its passage; otherwise it will cause pain, or, as dilatation goes on immediately, it will not reach the desired depth.

8. After insertion, the bougie must be left alone, and not meddled with, or tried to move.

9. It must be left inside undisturbed for from two to four hours, according to circumstances, consulting the feeling of the patient.

10. The patient during this time is left in a recumbent position, and attended or observed by the surgeon.

11. In removing the bougie, the surgeon takes hold of the bougie, and uses, firmly and gradually, tractions in the same direction.

If some surgeons have failed with laminaria, they either have not observed these precautions, or they have had imperfect bougies, or selected impracticable cases.

This treatment is most indicated when the stricture is very small, almost impermeable, and no time can be lost, as the No. 1 bougie of laminaria can be introduced easier than the usual sounds or catheters. In a few hours the patient is relieved, and can micturate without difficulty. No bad results can follow, nor will it interfere with his attention to business. This latter advantage is a great consideration, as the treatment with divulsors or dilators almost always causes pain, sufferings and detention in bed and from business. As soon as the stricture is dilated so far that a steel sound of a larger calibre can be introduced, the laminaria has done its duty, and it is better to abandon its further use, and continue with other means. These are either steel sounds or galvanism.

#### Action of Quinine on the Colorless Blood Corpuscles.

In the *Practitioner*, Dr. GELTOWSKY relates some experiments on this subject, and concludes:—

From these experiments it follows:—

a. That quinine arrests the movements of the colorless globules of the newt's blood, if it is used in the proportion of one part to 800 or 900 parts.

b. That the globules of the female's blood resist longer the action of quinine.

c. That the globules of the blood of animals enfeebled by the loss of blood in previous experiments resist the action of quinine a shorter time than the globules of animals entirely fresh.

d. That the solution of quinine, whether it be in water or in serum, acts with the same force. As regards the solution of quinine in serum, it is remarkable that the movement of the colorless globules ceases in a much shorter time if the serum is not perfectly fresh, although the reaction be neither more nor less alkaline than that of normal serum. I found, for instance, that in a preparation which contained two drops rabbit's serum kept for twenty-four hours after the animal died, and three drops of newt's blood, after half an hour the movement of the colorless globules had entirely ceased.

On injecting into the blood, doses which cause the death of animals, quinine has no influence on the colorless blood-corpuscles. Even if the quinine had had the same influence on the colorless corpuscles of the blood in the interior of the organism as under the microscope, it would have been impossible to explain, by the action of quinine on the colorless corpuscles, the cure of certain maladies under treatment by this drug, because, according to the preceding experiments, it is necessary to employ one part of quinine to 2800 parts of the blood of man. Hence, in the case of a man in whom the quantity of blood would amount to about 15 to 20 pounds, it would be necessary, in order to obtain the special effect, to take almost one drachm of quinine, which would be impossible.

I am therefore not able to affirm that quinine has an influence on the quantity of colorless blood-corpuscles in the organism; and I wish only to say that in leukaemia, under treatment by that drug, the decrease of these blood-corpuscles must be explained in some other way, and not by simple direct action of quinine on colorless blood-corpuscles; for instance, by direct action on the nervous system and indirect action on the glands, or other organs whose function it may be to give rise to or to destroy the colorless blood-corpuscles. But that would be a pure supposition, and not a result proved by experiment. ))

#### After-treatment in Surgery.

In a late number of the *London Medical Times and Gazette*, Dr. LEDIARD makes the following remarks:—

Carbolized catgut ligatures were used in all cases, and as a rule they were not seen again after the closing up of the flaps. To arteries in their continuity Mr. Spence uses silk. Dry cold was applied immediately after operation to all cases unless there was some special reason to the contrary, the method of application being as follows: The ice is pounded into small pieces and put into bags made of gutta-percha, chloroform sealing up the margin and rendering the bag water-tight. The bags are not to be put over the incision, but on either side. The dry cold was not kept on for more than forty-eight hours; in many cases not so long. The majority of cases were dressed, from first to

last, with a piece of oilskin dipped in dextrine, over the line of incision, and the entire wound covered with gutta-percha; the benefit of such treatment being that the discharge is not confined, and it is possible to see what is going on without removing the dressing. After the ice is given up, the gutta-percha is narrowed to the line of incision, so as not to retain cutaneous transpiration and create moisture, which tends to disorganize the connecting plasma. In all cases, stitches were removed as soon as possible, and replaced by ordinary strapping. In three cases of amputation there was reactionary hemorrhage to a small amount, requiring, however, the flaps to be taken down. In the majority of cases small abscesses formed during the healing; these seemed to be of service, allowing the incision to unite, and acting as a drain at a dependent part. The lotions employed were chlorinated soda, sulphate of zinc, chloride of zinc, carbolic acid, Condy, and in some cases simple water.

#### Treatment of Subclavian Aneurism.

A long paper on this subject appears in the last volume of the *Guy's Hospital Reports*, by Mr. POLAND, in continuation of a similar one in the preceding volume. In the present paper the principal points taken up are: 1. Ligature of the first portion of the subclavian artery for the cure of subclavian aneurism. Eleven cases are on record of this operation having been performed. As Mr. Poland observes, it is fraught with danger, and is for the most part undertaken against the acknowledged rules laid down for the success of ligature of a large artery in aneurism, the vessel being tied close to the aneurismal sac, at a point where large and important vessels are given off from it, and where it is in proximity with nerves, veins, and the pleura. In some subjects one incision is sufficient, but in fact two will be found requisite. All the cases recorded, with one exception, were of the right subclavian. The operation is pronounced by Ferguson the most difficult in surgery, and it is doubtful whether it should be again attempted, every case having proved fatal, though with different symptoms. The longest duration of life was thirty-six days. 2. Simultaneous ligature of the first portion of the subclavian and common carotid arteries. This operation has also proved uniformly fatal. 3. Ligature of the innominate. This has been performed twelve times without one case of success, though in a case under Graefe the patient lived to the sixty-seventh day.

#### AMERICAN MEDICAL ASSOCIATION.

The Triennial list of Permanent Members will be published this year. Permanent Members who have not paid their assessment will please notice:—

"Any Permanent Member who shall fail

to pay his annual dues for *three successive years*, unless absent from the country, shall be dropped from the roll of Permanent Members."

WM. B. ATKINSON,  
*Permanent Secretary.*

Medical journals please copy.

## REVIEWS AND BOOK NOTICES.

### BOOK NOTICES.

*Syphilis, its Nature and Treatment; With a Chapter on Gonorrhœa.* By CHARLES ROBERT DRYSDALE, M. D., etc. London: Baillière, Tindall & Co., 1872. Cloth, 8vo. pp. 165. Price 4s. 6d.

All interested in the progress of syphillography must not fail to peruse this closely argued treatise of Dr. DRYSDALE, a clinical observer of wide experience, and a calm and acute reasoner. Without pretending to criticise the views he advocates, we shall simply give his position on some of the much debated topics he handles.

On the great question of the unity or duality of the syphilitic virus, he is evidently more inclined to take a middle ground than he was some years ago. Formerly we considered him a decided dualist; but now he candidly acknowledges (p. 43) that soft chancres are, although rarely, followed by syphilis. He quotes, with approval (p. 78), Dr. KENNEDY'S saying, "the soft sore *may* infect, the hard sore always does." But in practice, he prefers the dualistic theory, because syphilis is so rare from a chancre.

He believes that in rare cases healthy mothers may bring forth syphilitic children, infected directly from the father, in this opposing the views of many.

The disease itself, he believes, probably came from America, introduced by the sailors of Columbus at his first voyage. In treatment he discards mercury. He thinks it "rather too dangerous a remedy to be used in most cases of syphilis." He treats all cases by the compounds of iodine.

His opinions are advanced cautiously but decisively, and they merit a most careful perusal. There is an air of judicial impartiality in the way in which he quotes and criticises the arguments of opposing writers which we rarely see in a medical book.

## MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, AUGUST 24, 1872.

S. W. BUTLER, M. D., D. G. BRINTON, M. D., Editors.

☞ Medical Societies and Clinical Reports, Notes and Observations, Foreign and Domestic Correspondence, News, etc., etc., of general medical interest, are respectfully solicited.

Articles of special importance, such especially as require original experimental research, analysis, or observation, will be liberally paid for.

☞ To insure publication, articles must be *practical, brief as possible to do justice to the subject, and carefully prepared, so as to require little revision.*

☞ Subscribers are requested to forward to us copies of newspapers containing reports of Medical Society meetings, or other items of special medical interest.

We particularly value the practical experience of country practitioners, many of whom possess a fund of information that rightfully belongs to the profession.

The Proprietor and Editors disclaim all responsibility for statements made over the names of correspondents.

## THEORIES OF FERMENTATION.

The favorite theory of the day, which attributes so much to the action of minute organisms, has long been applied to explain the changes which take place in fermentation. The doctrine advanced and sturdily advocated by LIEBIG, to the effect that fermentation is an essentially chemical phenomenon, has, in the minds of many, been supplanted by the doctrines of PASTEUR and his disciples, who find in the high omnipresent activity of germs a totally different explanation of the same processes.

These discussions interest physicians closely, for much of the famous and popular "germ theory of disease" stands or falls with the application of that same theory to the fermenting of organic products.

In spite of the recent protest of LIEBIG, and the tenacity with which many older chemists cling to his views, no doubt most younger observers incline to the germ explanation of the changes in question.

One able chemist, however, has lately attacked with the weapons of satire as well as close experiment the doctrines of PASTEUR. We refer to the Baron DU MESNIL.

A recent number of the *Journal of Applied Chemistry* contains a translation of some of his views. He regards fermentation as a purely chemical act, nothing else in fact than a slow combustion, but brought about, not by the oxygen of the air but by the oxygen of water. It is a burning up by water. Thus he says:—

Combustion is the oxidation of a body by the oxygen of the air. Fermentation is the oxidation of a body by the oxygen liberated when water is decomposed.

Combustion takes place only at a red heat. Place a strip of polished iron in a receiver, and subject it to a pressure of 10 atmospheres of oxygen, and it will not be tarnished. Combustion seems to be the effect of a galvanic battery while it produces heat without electricity. Whether heat and electricity be the same, and whether heat be produced by the direct union of the two electricities, is uncertain. We generally think that when a jet of steam passes over glowing coals it is decomposed in order to be recomposed, and that the heat ought to be more intense; yet we think that green wood, when thoroughly ignited, burns more brilliantly than dry wood. If these observations are correct, it follows that in the fire there is a decomposition and recombination of water, consequently a double electric shock; without this effect, the heat of the fire would be diminished to the extent necessary for evaporating the water. In all these cases, the latent heat set free will not suffice to explain the intensity of the heat produced.

Fermentation causes the decomposition of water and the oxidation of the combustible bodies under the greatest cold, and in the vats it develops a considerable heat, the result of the direct reunion of the two electricities. It is necessary, however, in order that it should attack the carbon of the sugar, that the heat be more than 10 degrees.

It is evidently the result of the action of an electric pile giving heat without electricity—as if the zinc were replaced by iron in a galvanic battery. In the old condition of science this action was called double chemical affinity. Thus a steam boiler may be subjected to the heat of the fire, as well as that of the steam and water at a high temperature, for 10 years without oxidizing, because it is not in the condition for fermenta-

tion; while a gun, though varnished and greased, which gets a few drops of water on it, is found the next day covered with rust, because the drops of water are penetrated with air, which contains oxygen and carbonic acid, so that the water is decomposed on the iron which is found in the conditions of fermentation, and this acts in spite of the greatest cold.

Having thus explained what, in his view, the true theory of the process is, he proceeds to exhibit the fallacies and weaknesses of the opposite hypothesis. He remarks:—

The popular view of fermentation considers it to be the action of animated atoms, revived from the Greeks and from the false Lucretius, just as any one may notice, at his leisure, how a ray of light passing through a small hole in a shutter illuminates a dark room and discloses a whole new world of natural history. These are vibrios and mycodermes, one of which makes the wine and the other the vinegar. It is friend and enemy all at once; they kill like the diseases in the hospitals, and in order to cure them it is necessary to arrest them on the door sill of the establishment by burning them. According to M. PASTEUR, these species of gnomes fall down perpendicularly from the sky. They never reascend from the earth, and have the prudence not to entangle themselves in the mouth of a vessel which is inverted.

This confirms what savants have observed in the vibrios of beer, that when the ferment is in action some species of little fellows are seen to come and go by the action of the electric pile. However, Thenard observed, fifty years ago, that when the ferment was exposed to the heat of boiling water it lost its fermenting properties. In fact, since PASTEUR's system kills the mycodermes at 60° C., with still more reason these vibrios ought to be killed at 100° C. But Thenard observes that after eight days the yeast of the beer regains its fermenting power.

This is explained chemically. Ammonia is the electric principle which makes the beer; in the North, garbage is found in beer. Ammonia constitutes the attractive pile for the nitrogenous part of the wine, whether it comes from the bitter principle or from putrid fermentation; but the yeast of the beer is a vegeto-animal, and is decomposed anew and again produces ammonia.

If we study the most recent works on

natural history the dead vibrios are found revived. Thus, this living dust, if useful and at the same time destructive, will have the special power of resurrection.

## NOTES AND COMMENTS.

### Mad Dogs.

The Council of Hygiene, of Bordeaux, says the *British Medical Journal*, has issued the following instructions:—"A short time, sometimes two days, after the madness has seized the dog, it creates disturbances in the usual condition of the animal, which it is indispensable to know. 1. There is agitation and restlessness; the dog turns himself continually in his kennel. If he be at liberty, he goes and comes, and seems to be seeking something; then he remains motionless, as if waiting; he starts, bites the air, seems as if he would catch a fly, and dashes himself, howling and barking, against the wall. The voice of his master dissipates these hallucinations; the dog obeys, but slowly, with hesitation, as if with regret. 2. He does not try to bite; he is gentle, even affectionate, and he eats and drinks; but he gnaws his litter, the ends of the curtains, the padding of cushions, the coverlids of beds, the carpets, etc. 3. By the movement of his paws about the sides of his open mouth, one might think he was wishing to free his throat of a bone. 4. His voice has undergone such a change that it is impossible not to be struck by it. 5. The dog begins to fight with other dogs; this is decidedly a characteristic sign, if the dog be generally of a peaceful nature. The numbers 3, 4, and 5, indicate an already very advanced period of the disease, and the time is at hand when man will be exposed to the dangerous fits of the animal, if immediate measures be not taken. These measures are to chain him up as dangerous, or better still, to destroy him."

### Charges Against Lunatic Asylums.

We have repeatedly noticed in these pages the unfounded charges brought against lunatic asylums and their management. The Bloomingdale (N. Y.) Asylum has been lately made the subject of these attacks, as also the New Jersey State Lunatic Asylum. The management of both these Institutions has always been creditable, and in reference to the latter, so far

from there being any attempt to detain patients unnecessarily, it is overcrowded already, and no further admissions will be received until some of the present patients are disposed of. It is one of the most carefully conducted establishments of the kind in our country.

### CORRESPONDENCE.

Attributing Good Results to the Wrong Agency.  
EDS. MED. AND SURG. REPORTER:

In the REPORTER, for June 22d, 1872, THOMAS BARROW, M. D., of Baltimore, Md., reports many cases of bronchitis treated with—

Syrup. senegæ,  
Mistura glycyrrhiz. comp.,  
Ant. et pot. tartaras,  
Morphia sulphas.

The human organism is so complex, the manifestation of disease, and the effect of remedies so various, that as yet our knowledge of pathology and of therapeutics is limited indeed.

But I apprehend that much of our ignorance is due to improper methods of observation.

With our present mode, or fashion rather, of using mixed prescriptions, nothing is easier than to attribute good results to a wrong agency. Nothing retards the progress of our knowledge so much as this. In this way we trace an effect to a cause, when in fact many agencies have been operative in producing it. By putting the attention upon one agency, we lose sight of others equally as important in producing the observed result.

Until physicians shall learn to use simple prescriptions, when they wish to observe and REPORT therapeutic effects, we shall ever remain in ignorance of the true value of any one medicine.

The paper above referred to is entitled "Seneca as a Bronchial Alterative." And in each prescription syrup of seneca is the basis. Nevertheless, in each is sixteen simple drugs, each of which, doubtless, aided in the general effect. Yet, from the tenor of the article, to seneca alone is ascribed the power of cure.

Seneca is certainly a valuable drug; but if compelled to omit one of two ingredients in the above recipe, either Seneca or Morphia, in the treatment of bronchitis, accom-

panied by cough, nine practitioners out of ten would omit Seneca, since syrup

Mistura glycyrr. comp.,  
Ant. et pot. tartaras,

each exert a peculiar effect upon the bronchial mucous membrane.

I would not reflect upon the article referred to more than on others of like character which are constantly meeting my attention.

I hope Radix Senega will be used; but let its virtues be made known when used alone, for then only can the profession decide upon its merits.

D. R. SILVER, M. D.

Sidney, Ohio.

### NEWS AND MISCELLANY.

It has lately been discovered that the carbonates of potash and soda possess the same property of protecting iron and steel from rust as do those alkalies in a caustic state.

THE State Hospital at New Haven, Connecticut, will be at once enlarged by the building of two wings, at an expense of \$40,000, of which the State bears half, and the other half is raised by subscription.

### MARRIAGES.

DE VENY—McGILL.—In Syracuse, N. Y., July 1, by Rev. Joseph M. Clarke, D. D., S. Charles De Veny, M. D., of Williamstown, Pa., and Miss Minnie C., only daughter of the late W. C. McGill, of Simcoe, Ontario.

### DEATHS.

ANDERSON.—At Blairgowrie, Palo Alto county, Iowa, on the 12th of August, Tom Anderson, eldest son of Eliza P. and the late Alexander Anderson, M. D., of Jedburg, Scotland.

BARRON.—In Brooklyn, New York, August 4, HENRY W. BARRON, M. D., in the 38th year of his age.

BASSETT.—Suddenly, in Wilton, Connecticut, Frankie Lee, only son of Dr. B. F. and M. L. Bassett, aged 2 years and 5 months.

BELL.—In Philadelphia, on the evening of August 19, 1872, Dr. John Bell, in the 77th year of his age.

BIGLOW.—At Englewood, the 15th inst., Mabel Edwards, infant daughter of the late Dr. James and Minnie Bigelow, aged 18 months and 29 days.

BROOK.—In New York, August 12th, Hannah Maria, wife of Dr. E. H. Bishop.

EPPEL.—August 11th, Elizabeth Thorp, daughter of Dr. Richard and Elizabeth W. Eppele, of City Point, Va., aged 2 years.

HUMPHREY.—On the 3d inst., at Beverly, N. J., Gideon Humphrey, M. D., aged 94 years.

HUNTER.—In New York, on Tuesday, August 4, Ga'len Hunter, M. D., aged 72 years.

KNIGHT.—At Metuchen, N. J., August 5, William Knight, M. D., son of the late Rev. Dr. William Knight.

VANDERBEEK.—Sweetly fell asleep in Jesus, Aug. 14, 1872, Fannie J. McDole, wife of C. C. Vander-

beck, M. D., of Valentine, N. J., and youngest daughter of Andrew and Eliza J. McDole, in the 1st year of her age.